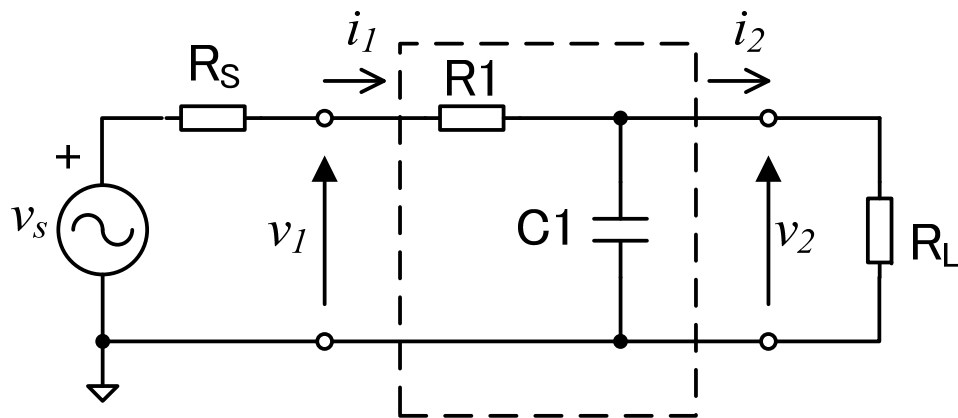


Problems 02-1

# **TRANSFER FUNCTION AND TWO-PORT NETWORK PARAMETERS**

# Problems

1. Find the tow-port network parameters of the F matrix.
2. Express the frequency domain transfer function  $H(j\omega) = v_2(j\omega)/v_1(j\omega)$  by using the F parameters and the load  $R_L$ .
3. Express the frequency domain transfer function by using  $R_1$ ,  $R_L$  and  $C_1$ .
4. Plot the Bode diagram of the frequency transfer function.



$$\begin{bmatrix} v_1 \\ i_1 \end{bmatrix} = \begin{bmatrix} A & B \\ C & D \end{bmatrix} \begin{bmatrix} v_2 \\ i_2 \end{bmatrix}$$